

WHAT WE CLAIM IS:

1           1. A controlled plumbing fixture, comprising:  
2                 (a) a plumbing fixture;  
3                 (b) electromechanical valve means  
4 operably associated with said fixture for regulating the  
5 flow of water thereto;  
6                 (c) control means operably associated  
7 with said valve means for controlling operation thereof;  
8 and  
9                 (d) a self-calibrating push button  
10 operably associated with said control means for supplying  
11 a demand signal thereto and for thereby causing said  
12 control means to supply a control signal to said valve  
13 means for causing operation thereof.

1           2. The fixture of claim 1, wherein:  
2                 (a) said fixture is one of a toilet, sink  
3 and shower.

1           3. The fixture of claim 1, wherein the push  
2 button comprises:  
3                 (a) a movable plunger;  
4                 (b) biasing means operably associated  
5 with said plunger for urging said plunger toward a first  
6 position; and

1 . 5. The fixture of claim 3, wherein:

1                   6. The fixture of claim 5, wherein:

(a) said member is frustoconical, and the  
frustum thereof is spaced from said second position.

1                   7. The fixture of claim 3, wherein:

2 (a) said biasing means includes a coil  
3 spring; and  
4 (b) said spring surrounds at least a  
5 portion of said sensor means.

1               8. The fixture of claim 7, wherein:  
2                     (a) said plunger includes a flange  
3 engaged with said spring.

1               9. The fixture of claim 3, wherein:  
2                     (a) said sensor means is one of an  
3 inductive sensor and a magnetic reed switch.

1               10. A controlled plumbing fixture, comprising:  
2                     (a) a plumbing fixture;  
3                     (b) an electromechanically operated valve  
4 operably associated with said fixture for regulating the  
5 flow of water thereto;  
6                     (c) a push button plunger operably  
7 associated with said fixture for being operated by a user  
8 of said fixture;  
9                     (d) biasing means operably associated  
10 with said plunger for urging said plunger in a first  
11 direction toward the user;  
12                     (e) movable sensor means spaced from said  
13 plunger for generating a demand signal upon a user moving  
14 said plunger into operative association with said sensor  
15 means; and  
16                     (f) control means operably associated  
17 with said sensor means and said valve for causing said  
18 valve to operate when said control means receive a demand  
19 signal.

1               11. The fixture of claim 10, wherein:  
2                         (a) means are operably associated with  
3        said sensor means for allowing said sensor means to move  
4        in response to and when engaged by said plunger and for  
5        thereafter maintaining said sensor means in the position  
6        to which it has been moved.

1               12. The fixture of claim 11, wherein:  
2                         (a) said allowing and maintaining means  
3        includes an elastomeric member fixed relative to said  
4        biasing means and slidably engaged with said sensor  
5        means.

1               13. The fixture of claim 12, wherein:  
2                         (a) said sensor means is cylindrical, and  
3        said member has an aperture through which said sensor  
4        means extends.

1               14. The fixture of claim 12, wherein:  
2                         (a) said sensor means is one of an  
3        inductive sensor and a reed switch.

1               15. The fixture of claim 13, wherein:  
2                         (a) said biasing means includes a helical  
3        coil spring; and

4 (b) said sensor means extends through  
5 said spring.

1                   16. A self-calibrating push button,  
2 comprising:

11 (d) sensor means operably associated with  
12 said housing and having a portion extending through the  
13 other one of said openings and into said chamber toward  
14 said plunger; and

17. A push button of claim 16, wherein:

2 (a) holding means are operably associated  
3 with said housing and disposed within said other one of

4 said openings for maintaining said biasing means within  
5 said chamber.

1 18. The push button of claim 17, wherein:  
2 (a) said permitting and maintaining means  
3 is secured to said holding means.

1 19. The push button of claim 18, wherein:  
2 (a) said permitting and maintaining means  
3 includes an elastomeric member.

1 20. The push button of claim 18, wherein:  
2 (a) said member is frustoconical, and has  
3 a base proximate said other one of said openings and a  
4 frustum extending therefrom.

1 21. The push button of claim 20, wherein:  
2 (a) said sensor means is cylindrical and  
3 is engaged by the frustum.

1 22. The push button of claim 21, wherein:  
2 (a) said biasing means is a coil; and  
3 (b) said sensor means extends coaxially  
4 through said coil.

1           23. The push button of claim 20, wherein:  
2                 (a) means are operably associated with  
3 the base of said member for fixing said member relative  
4 to said holding means.

1           24. The push button of claim 21, wherein:  
2                 (a) said sensor means is one of an  
3 inductive sensor and a reed switch.

1           25. The push button of claim 21, wherein:  
2                 (a) a flexible cord has a first end in  
3 electrical connection with said sensor means and an  
4 opposite end having a releasable connector for connection  
5 with said control means.

1           26. A method of calibrating a push button  
2 having a plunger, a spring operably associated with the  
3 plunger for urging the plunger in a first direction, and  
4 a sensor, the method comprising the steps of:

5                 (a) moving the plunger in a second  
6 direction opposite to the first direction and thereby  
7 engaging the sensor and moving the sensor in the second  
8 direction; and

9                 (b) securing the sensor in the position  
10 to which it was moved by the plunger.